

Notice of Allowability

Application No.

09/667,775

Examiner

Johannes P Mondt

Applicant(s)

KAWANISHI ET AL.

Art Unit

2826

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to RCE filed 11/29/2004.
2. ☒ The allowed claim(s) is/are 1-9 and 11-20.
3. ☒ The drawings filed on 9/22/00 + Replacement Shs filed 4/16/04 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/29/2004 has been entered.

Response to Amendment

Amendment filed under 37 C.F.R. §1.116 on 10/28/2004 has been entered following and in view of aforementioned Request for Continued Examination. In said Amendment Applicants substantially amended all elected outstanding claims through substantial amendment of claims 1, 4, 5 and 6. Claim 10 was cancelled in the Amendment filed 10/29/2003. Claims 1-9 and 11-20 are the only elected, non-cancelled claims, claims 21-54 having been withdrawn without traverse (in the Response filed 10/17/2002).

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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The application has been amended as follows:

Claims 21-54, previously withdrawn without traverse, have been cancelled.

END OF EXAMINER'S AMENDMENT

REASONS FOR ALLOWANCE

Claims 1-9 and 11-20 are allowed.

3. The following is an examiner's statement of reasons for allowance:

(a) With regard to claims 1-3, 11-13, 18 and 19, within the context of the invention as defined by independent claim 1, a chip-encapsulating molded lens with light diffusion capability has not been found in the prior art: closely related art is Tanaka (5,177,753) cited in the previous office action, however, the light diffusion capability as described in Applicants' Specification includes the capability of scattering over mean free paths that are small in comparison with the length of the light path through said resin compound sufficient to cause substantial diffusion of the light ray emanating from the laser. Said resin in Tanaka is not a mixture on length scales comparable to said mean free paths. An update search also yielded Lebby et al (5,838,703) (see enclosed Form PTO-892), teaching a chip-encapsulating mounting structure 18 or 52/56. However, of the elements 18, 52 and 56 only 54 is a resin, but element 54 does not include the lens (29) (cf. col. 5, l. 40 – col. 8, l. 44), , while no specific teaching of diffusion capability (light scattering within the lens resulting in diffusion of light) can be found in Lebby et al.

(b) With regard to claims 4, 7, 14 and 16, within the context of the invention as described by independent claim 4, a chip-encapsulating molded lens of resin with light

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diffusion capability has not been found in the prior art: closely related art is Tanaka (5,177,753) cited in the previous office action, however, the light diffusion capability as described in Applicants' Specification includes the capability of scattering over mean free paths that are small in comparison with the length of the light path through said resin compound sufficient to cause substantial diffusion of the light ray emanating from the laser. Said resin in Tanaka is not a mixture on length scales comparable to said mean free paths. An update search also yielded Lebby et al (5,838,703), teaching (Figures 1-6) a chip-encapsulating mounting structure 18 or 52/56. However, of the elements 18, 52 and 56 only 54 is a resin, but 54 does not include the lens (29) (cf. col. 5, l. 40 – col. 8, l. 44), , while no specific teaching of diffusion capability (light scattering within the lens resulting in diffusion of light) can be found in Lebby et al.

(c) With regard to claims 5 and 8, within the context of independent claim 5, a chip-encapsulating molded lens of resin with light diffusion capability has not been found in the prior art: closely related art is Tanaka (5,177,753) cited in the previous office action, however, the light diffusion capability as described in Applicants' Specification includes the capability of scattering over mean free paths that are small in comparison with the length of the light path through said resin compound sufficient to cause substantial diffusion of the light ray emanating from the laser. Said resin in Tanaka is not a mixture on length scales comparable to said mean free paths. An update search also yielded Lebby et al (5,838,703), teaching (Figures 1-6a chip-encapsulating mounting structure 18 or 52/56. However, of the elements 18, 52 and 56 only 54 is a resin, but 54 does not include the lens (29) (cf. col. 5, l. 40 – col. 8, l. 44), ,

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while no specific teaching of diffusion capability (light scattering within the lens resulting in diffusion of light) can be found in Lebby et al.

(d) With regard to claims 6, 9, 15, 17 and 20, within the context of independent claim 6, a chip-encapsulating molded lens of resin with light diffusion capability has not been found in the prior art: closely related art is Tanaka (5,177,753) cited in the previous office action, however, the light diffusion capability as described in Applicants' Specification includes the capability of scattering over mean free paths that are small in comparison with the length of the light path through said resin compound sufficient to cause substantial diffusion of the light ray emanating from the laser. Said resin in Tanaka is not a mixture on length scales comparable to said mean free paths. An update search also yielded Lebby et al (5,838,703), teaching a chip-encapsulating mounting structure 18 or 52/56. However, of the elements 18, 52 and 56 only 54 is a resin, but 54 does not include the lens (29) (cf. col. 5, l. 40 – col. 8, l. 44), while no specific teaching of diffusion capability (light scattering within the lens resulting in diffusion of light) can be found in Lebby et al.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Johannes P Mondt whose telephone number is 571-272-1919. The examiner can normally be reached on 8:00 - 18:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan J Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JPM
December 10, 2004